

may have legitimate functions, but they are not for the writer of history, as their use means sacrificing whole batches of facts contained in the lopped-off portions. 'Precis' is rather his refuge.

The author's extensive use of inverted commas admits that his book is principally culled from other sources, as indeed any history must be; but his editing of the subject matter at his disposal is out of proportion. He states that "Countless centuries of heroic failure . . . must be summarized in a chapter", and then proceeds to devote whole chapters to such subjects as "Women in Aviation" and "The American Air Mail". Such things have occurred only in the last few years, and are then merely episodes.

Lack of perspective is marked in the author's choice of subjects and illustrations. American aeronautics receives a far larger proportion of pages than its share in the world's aeronautical history merits. This is understandable in a book written and published in the U.S.A. National pride is wholly admirable, but it is out of place under the title that this book carries. The book goes even further than this in publishing a photograph of the author with a delivery of U.S.A. air mail. Surely the decision as to the historical importance of that could better have been left to posterity.

Its limitations are redeemed, to a certain extent, by an extensive bibliography, which mentions other sources of historical knowledge, but this is by no means up-to-date, especially with regard to European publications.

As a collection of short historical studies the book provides instructive and amusing reading. It should never have been submitted to the world of serious technical history under so ambitious a title. *Coram non iudice*.

*The Electric Wiring of Buildings.* By F. Charles Raphael. Pp. x + 258. (London: Sir Isaac Pitman and Sons, Ltd., 1930.) 10s. 6d. net.

THERE are many practical hints in this little book which appeal to common sense, although from the point of view of the ordinary electric wireman they are quite unorthodox. The author points out, for example, that the wiring of many houses is spoilt by placing the wall sockets indiscriminately without regard to the position or character of the apparatus to be connected to them. It is as absurd to place the wall socket for a floor standard lamp or vacuum cleaner three feet from the floor as to put one for a table standard at floor level, if the table is to be against the wall. It is quite right to put the wall socket for an electric fire on the skirting, but the almost universal practice of placing the switch there as well is foolish. It is true that this saves the cost of a wood block and a few feet of wire, but this saving of a shilling or two on capital cost is only effected by compelling people for ever afterwards to stoop down to the floor when they want to switch on or off the electric fire. The book finishes up with a useful chapter on bells, telephones, fire alarms, and radio. As a rule, it is advisable to have all these kinds of wiring done before the building is actually

furnished. In the case of telephones, however, it is sometimes difficult to tell which is the most suitable place for them before the house is furnished, and hence surface wiring is very frequently used for telephone work. The proper wiring of all electric radio receiving sets deserves special care. Unless the Institution of Electrical Engineers Wiring Regulations, published in June 1928, be followed, there may be danger from shock or fire.

*Calculus.* By Prof. Egbert J. Miles and James S. Mikesch. Pp. xiii + 638. (New York: McGraw-Hill Book Co., Inc.; London: McGraw-Hill Publishing Co., Ltd., 1930.) 18s. 9d. net.

To the student reading natural science as his main object, this book will have a definite appeal. A considerable number of well-chosen examples of the use of the derivative in hydrostatics and in pumping machines is an unusual feature. The authors state that, in the earlier part of the book at least, they purposely reject the delta notation, with the object of making the transition from conventional algebra easier for the average reader. This seems a somewhat needless scruple, for it only means greater difficulty at a later stage when the methods of the operator calculus have to be mastered: in these days this branch of the subject is finding new applications.

Nevertheless, one gets the impression that the authors intended to produce their work, in the first place, for the pure mathematician rather than for the physicist or engineer. If this is so, they will be less successful, for the treatment throughout tends to be more careful of the reader's supposed attainments at each stage than is quite compatible with perfect rigour.

That the volume will prove helpful in a variety of ways is certain: a special word of commendation is due to the publishers for the excellence of the graphs, which really do enhance the value of the book.

*Optical Rotatory Power: a General Discussion held by the Faraday Society, April 1930.* Pp. iv + 265-461. (London: The Faraday Society, 1930.) 10s. 6d.

THE reports of discussions held by the Faraday Society are always welcome. Naturally, a series of individual contributions lacks unity of aim to some extent, but a certain freshness of outlook results, which is all to the good. The meeting itself has been described at some length in our columns (*NATURE*, May 17, 1930, p. 762); little therefore remains but to direct attention to the appearance of the papers in book form.

The memoirs by Dr. Temple, Dr. Kuhn, and Prof. Ewald contain the vital points at issue; probably, however, in no case has the last word been said on a subject unusually intractable. Right- and left-handed forms of active molecules certainly possess stability, and yet the new mechanics has no solution of these facts to offer. Workers will be grateful, none the less, for the results of a decidedly interesting conference.